

FIG. 1A

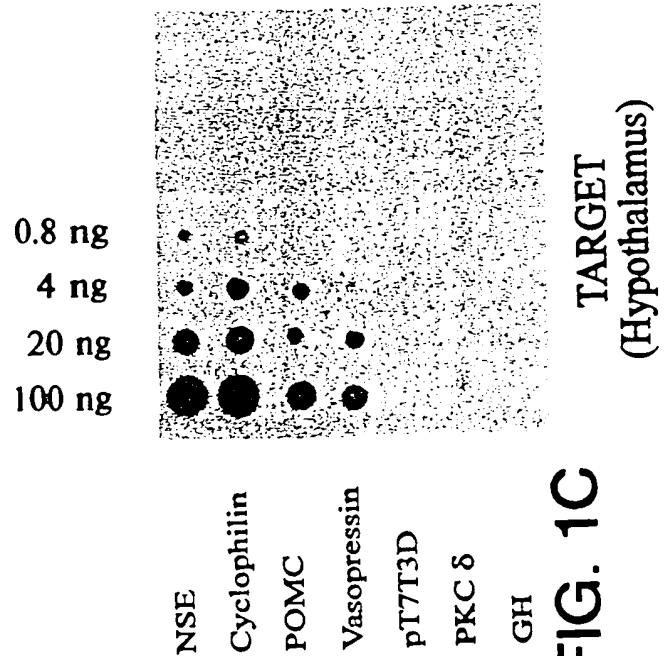


FIG. 1C

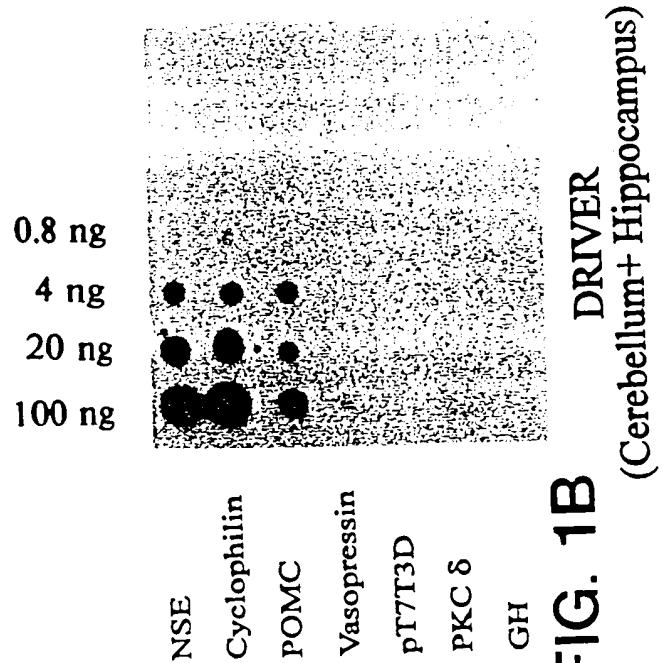


FIG. 1B

D1 D2 T

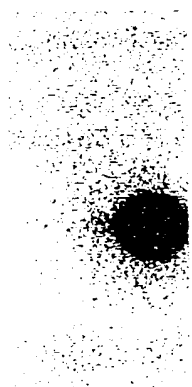


FIG. 2A

D1 D2 T

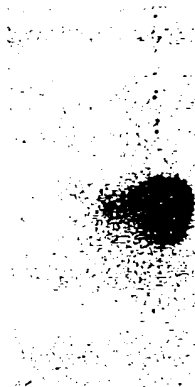


FIG. 2B

D1 D2 T



FIG. 2C

D1 D2 T



FIG. 2D

FIG. 3A

Clone 2

Clone 35

Brain
Olfactory bulb
Cortex
Hippocampus
Hypothalamus
Hypothalamus
Thalamus
Cerebellum
Pituitary
Liver
Kidney
Heart

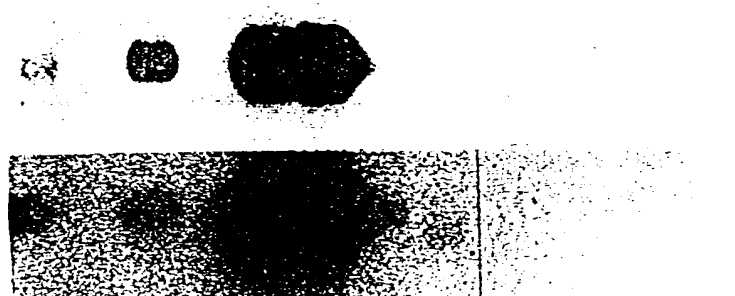


FIG. 3B

Clone 6

Clone 10

Clone 12

Clone 20

Clone 67

Brain
Olfactory bulb
Cortex
Hippocampus
Hypothalamus
Hypothalamus
Thalamus
Cerebellum
Pituitary
Liver
Kidney
Heart

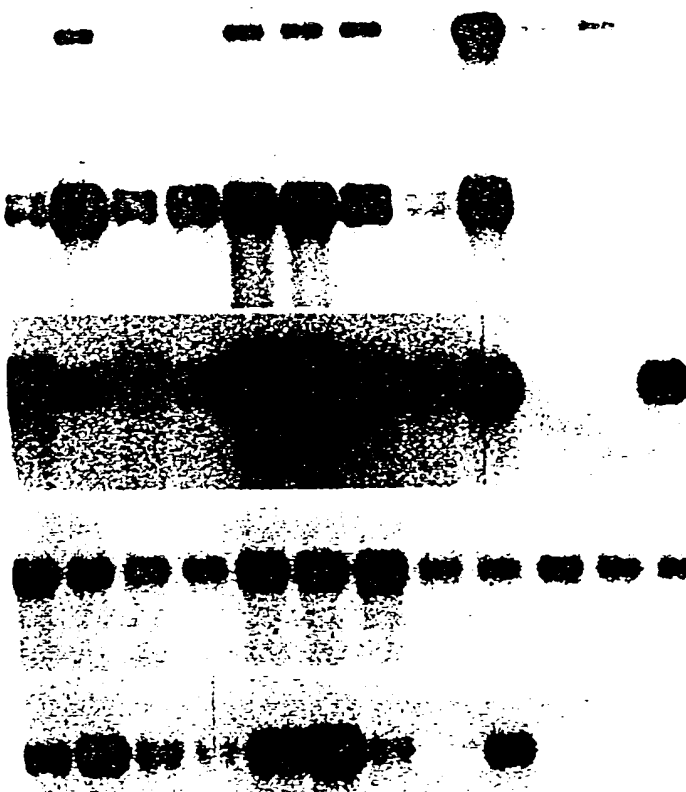


FIG. 3C

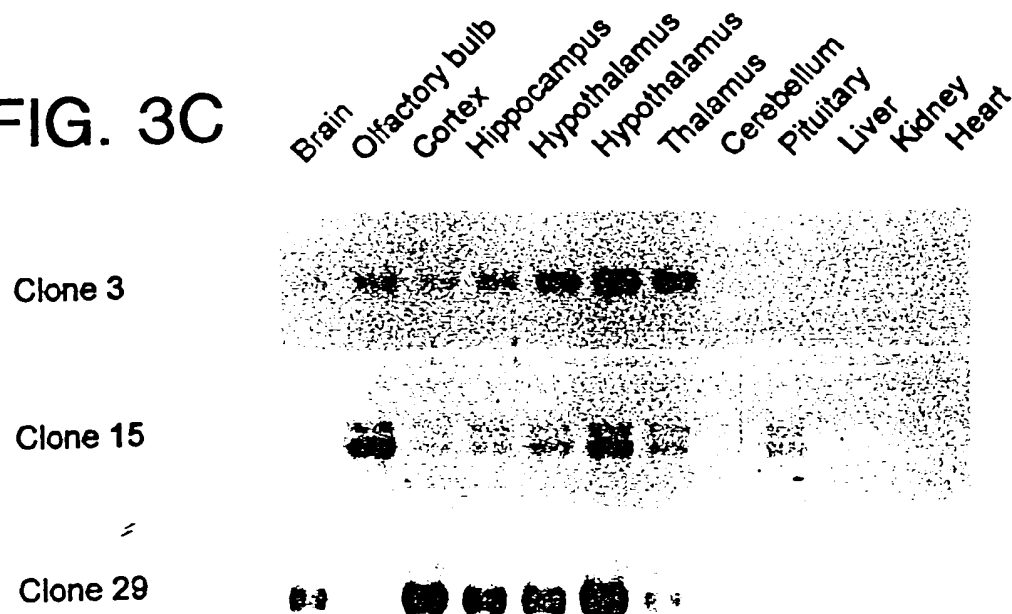
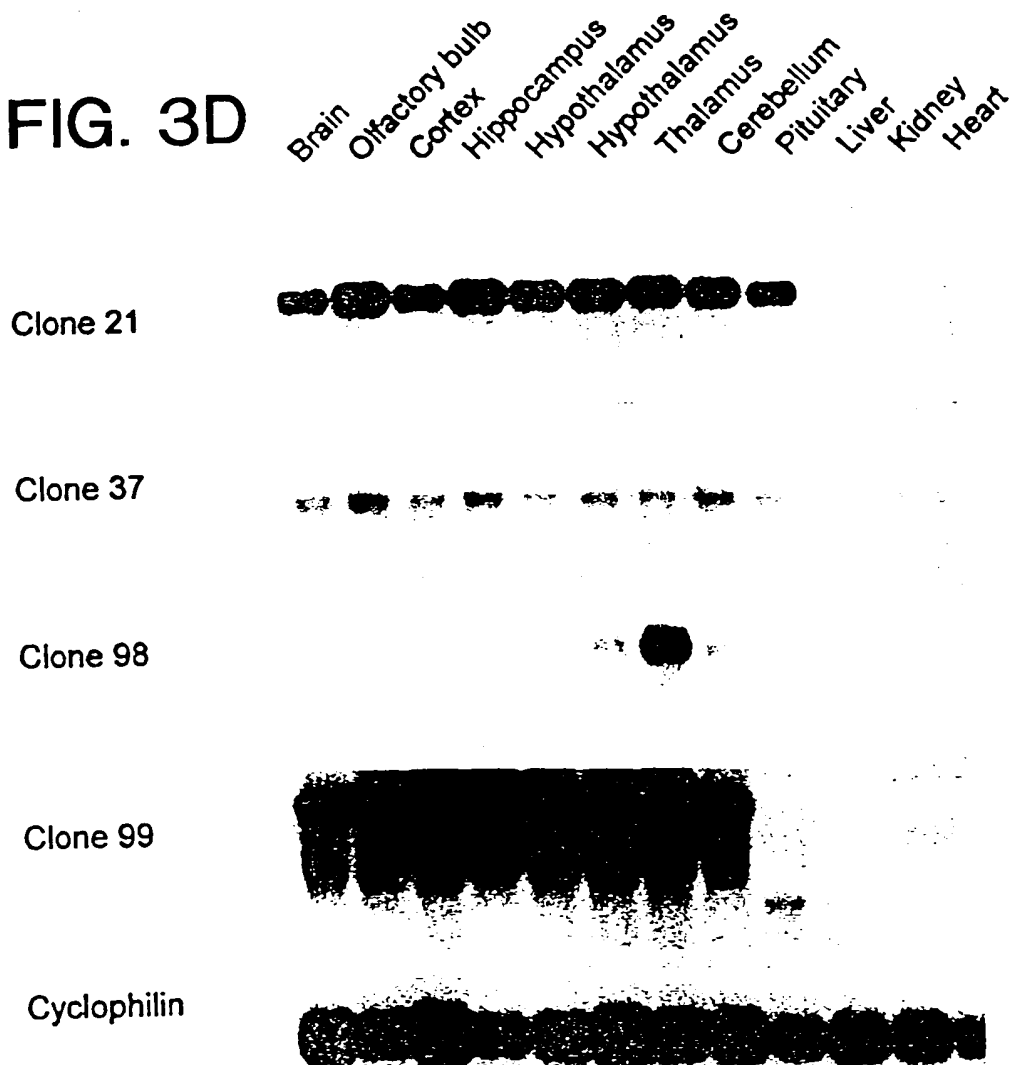


FIG. 3D



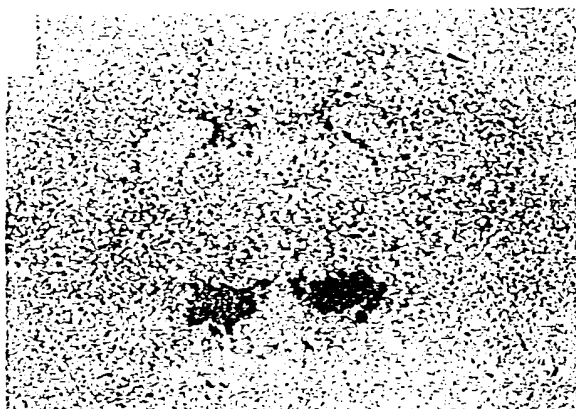


FIG. 4A

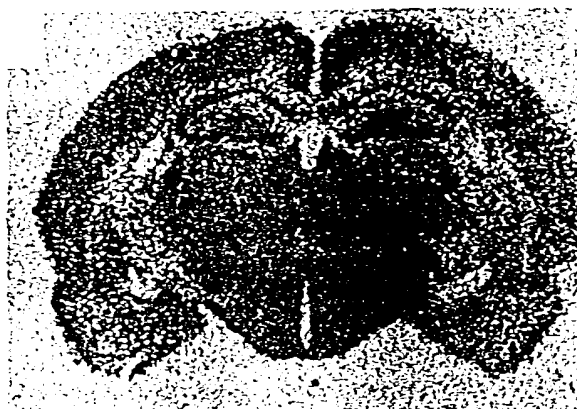


FIG. 4D



FIG. 4B



FIG. 4E



FIG. 4C

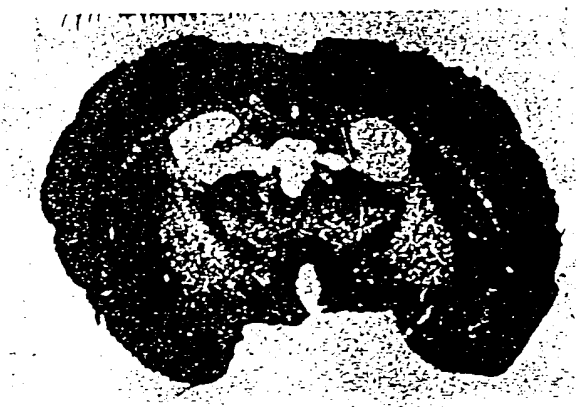


FIG. 4F

FIG. 5A

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| M | N | L/F | P | S | T | K | V | P | W | A | A | V | T | L | L |
| ATG | AAC | CTT | CCT | TCT | ACA | AAG | GTT | CCC | TGG | GCC | GCC | GTG | ACG | CTG | CTG |
| ATG | AAC | TTT | CCT | TCT | ACA | AAG | GTT | CCC | TGG | GCC | GCC | GTG | ACG | CTG | CTG |
| | | * | | | | | | | | | | | | | |
| L | L | L | L | L | P | P | A | L | L | S | L | G | V | D | A |
| CTG | CTG | CTA | CTG | CTG | CCG | CCG | GCG | CTG | CTG | TCG | CTT | GGG | GTG | GAC | GCG |
| CTG | CTG | CTA | CTG | CTG | CCG | CCG | GCG | CTG | CTG | TCG | CTT | GGG | GTG | GAC | GCA |
| | | | | | | | | | | | | | | | * |
| Q | P | L | P | D | C | C | R | Q | K | T | C | S | C | R | L |
| CAG | CCT | CTG | CCC | GAC | TGC | TGT | CGC | CAG | AAG | ACG | TGT | TCC | TGC | CGT | CTC |
| CAG | CCT | CTG | CCC | GAC | TGC | TGT | CGC | CAG | AAG | ACG | TGT | TCC | TGC | CGT | CTC |
| | | | | | | | | | | | | | | | |
| Y | E | L | L | H | G | A | G | N | H | A | A | G | I | L | T |
| TAC | GAA | CTG | TTG | CAC | GGA | GCT | GGC | AAC | CAC | GCC | GCG | GGC | ATC | CTC | ACT |
| TAC | GAA | CTG | TTG | CAC | GGA | GCT | GGC | AAC | CAC | GCT | GCG | GGT | ATC | CTG | ACT |
| | | | | | | | | | | * | | * | | * | |
| L | G | K | R | R | P | G | P | P | G | L | Q | G | R | L | Q |
| CTG | GGA | AAG | CGG | CGA | CCT | GGA | CCC | CCA | GGC | CTC | CAA | GGA | CGG | CTG | CAG |
| CTG | GGA | AAG | CGG | CGG | CCT | GGA | CCT | CCA | GGC | CTC | CAG | GGA | CGG | CTG | CAG |
| | | | | * | | | * | | | | * | | | | |
| R | L | L | Q | A | N | G | N | H | A | A | G | I | L | T | M |
| CGC | CTC | CTT | CAG | GCC | AAC | GGT | AAC | CAC | GCA | GCT | GGC | ATC | CTG | ACC | ATG |
| CGC | CTC | CTT | CAG | GCC | AAC | GGT | AAC | CAC | GCA | GCT | GGC | ATC | CTG | ACC | ATG |
| | | | | | | | | | | | | | | | |
| G | R | R | A | G | A | E | L | E | P | Y/H | P | C | P/S | G | R |
| GGC | CGC | CGC | GCA | GGC | GCA | GAG | CTA | GAG | CCA | TAT | CCC | TGC | CCT | GGT | CGC |
| GGC | CGC | CGC | GCA | GGC | GCA | GAG | CTA | GAG | CCA | CAT | CCC | TGC | TCT | GGT | CGC |
| | | | | | | | | | | * | | | * | | |
| R/G | C | P | T | A/V | T | A/T | T | A | L | A | P | R | G | G | S |
| CGC | TGT | CCG | ACT | GCA | ACC | GCC | ACC | GCT | TTA | GCG | CCC | CGG | GGC | GGA | TCC |
| GGC | TGT | CCG | ACC | GTA | ACT | ACC | ACC | GCT | TTA | GCA | CCC | CGG | GGA | GGG | TCC |
| * | | | * | * | * | * | | | * | | | * | * | * | |
| R/G | V | | | | | | | | | | | | | | |
| AGA | GTC | TGA | | | | | | | | | | | | | |
| GGA | GTC | TGA | | | | | | | | | | | | | |
| * | | | | | | | | | | | | | | | |

FIG. 5B

| | |
|------------|---|
| consensus: | RL LL GNHAAGILT G |
| hert1: | LGVDAQPLPDCCRQKTCSCRLYELLHGAGNHAAGILTLG |
| hert2: | PGPPGLQGRLLQRLQLQANGNHAAGILTMG |
| SECRETIN: | HSDGTFTSKLSRLRDSARLQRLQLQGLV HSDGTFTSK |

* * * * *

38 Dec 1970 27 FEB 199

7 / 10

| | | |
|-----|--|-----|
| 1 | GCTAGGAGACATTGCGGCGGCGGTGGCGGCGTTGGCAGCAGCTGCAGACATGCTGCTGCT -----+-----+-----+-----+-----+-----+-----+ CGATCCTCTGTAAACGCCGCCGCCGCCGCAACCGTCGTCGACGTCTGTACGACGACGA M L L L | 60 |
| 61 | CAAGAAACAGACGGAGGACATCAGCAGTGTCTATGAGATCCGGGAGAAGCTGGGGCTCGGG -----+-----+-----+-----+-----+-----+-----+ GTTCTTTGTCTGCCCTCCTGTAGTCGTACAGATACTCTAGGCCCTCTTCGACCCGAGCCC K K Q T E D I S S V Y E I R E K L G S G | 120 |
| 121 | TGCCTTCTCTGAGGTGATGCTGGCCCGAGAAAGGGGCTCTGCTCATCTTGTGGCCCTCAA -----+-----+-----+-----+-----+-----+-----+ ACGGAAGAGACTCCACTACGACCGGGTCCTTTCCCCGAGACGAGTAGAACACCGGGAGTT A F S E V M L A Q E R G S A H L V A L K | 180 |
| 181 | GTGCATTCCCAAGAAAGCACTTCGGGGCAAGGAGGCCCTGGTGGAGAATGAGATCGCAGT -----+-----+-----+-----+-----+-----+-----+ CACGTAAGGGTTCTTTTCGTGAAGCCCCGTTTCCCGGACCACCTCTTACTCTAGCGTCA C I P K K A L R G K E A L V E N E I A V | 240 |
| 241 | ACTCCGCAGGATTAGCCACCCCAACATTGTGGCTCTGGAGGACGTCCACGAGAGCCCTTC -----+-----+-----+-----+-----+-----+-----+ TGAGGCGTCCTAATCGGTGGGGTTGTAACACCGAGACCTCCTGCAGGTGCTCTCGGGAAG L R R I S H P N I V A L E D V H E S P S | 300 |
| 301 | CCATCTCTACTTGGCCATGGAGCTGGTAACAGGTGGTGAACCTGTTTGACCGAATCATGGA -----+-----+-----+-----+-----+-----+-----+ GGTAGAGATGAACCGGTACCTCGACCATTGTCCACCACTTGACAACTGGCTTAGTACCT H L Y L A M E L V T G G E L F D R I M E | 360 |
| 361 | GCGGGGCTCCTACACAGAGAAGGATGCGAGCCACCTTGTAGGGCAGGTCCTTGGTGCTGT -----+-----+-----+-----+-----+-----+-----+ CGCCCCGAGGATGTGTCTCTTCCCTACGCTCGGTGGAACATCCCGTCCAGGAACCACGACA R G S Y T E K D A S H L V G Q V L G A V | 420 |
| 421 | CTCCTACCTTCATAGCCTGGGCATCGTGCACCGGGACCTCAAGCCTGAAAACCTCCTCTA -----+-----+-----+-----+-----+-----+-----+ GAGGATGGAAGTATCGGACCCGTCAGCAGTGGCCCTGGAGTTTCGGACTTTTGGAGGAGAT S Y L H S L G I V H R D L K P E N L L Y | 480 |
| 481 | TGCCACACCTTTTGGAGGACTCCAAGATCATGGTCTCTGACTTTGGCCTGTCCAAAATTCA -----+-----+-----+-----+-----+-----+-----+ ACGGTGTGGAAAACCTCCTGAGGTTCTAGTACCAGAGACTGAAACCGGACAGGTTTAAGT A T P F E D S K I M V S D F G L S K I Q | 540 |

FIG. 6A

30 APR 1997 27 FEB 1997

8 / 10

541 AGCTGGCAACATGCTAGGCACAGCCTGTGGGACCCCAGGATATGTGGCCCCAGAGCTCCT 600
-----+-----+-----+-----+-----+-----+
TCGACCGTTGTACGATCCGTGTGCGACACCCTGGGGTCTTATACACCGGGGTCTCGAGGA
A G N M L G T A C G T P G Y V A P E L L

601 GGAGCAGAAACCCTACGGGAAGGCCGTAGATGTGTGGGCCCTGGGTGTCATCTCCTACAT 660
-----+-----+-----+-----+-----+-----+
CCTCGTCTTTGGGATGCCCTTCCGGCATCTACACACCCGGGACCCACAGTAGAGGATGTA
E Q K P Y G K A V D V W A L G V I S Y I

661 CCTGCTGTGTGGGTACCCCCCTTCTATGATGAGAGCGATCCTGAACTCTTCAGCCAGAT 720
-----+-----+-----+-----+-----+-----+
GGACGACACACCCATGGGGGGGAAGATACTACTCTCGCTAGGACTTGAGAAGTCGGTCTA
L L C G Y P P F Y D E S D P E L F S Q I

721 TCTGAGGGCCAGCTACGAGTTTGACTCTCCCTTTTGGGATGACATCTCAGAATCAGCCAA 780
-----+-----+-----+-----+-----+-----+
AGACTCCCGGTGCGATGCTCAAAGTGAAGGGGAAAACCCTACTGTAGAGTCTTAGTCGGTT
L R A S Y E F D S P F W D D I S E S A K

781 AGACTTCATTTCGGCACCTTCTGGAACGTGATCCCCAGAAGAGGTTACCTGCCAACAGGC 840
-----+-----+-----+-----+-----+-----+
TCTGAAGTAAGCCGTGGAAGACCTTGCACTAGGGGTCTTCTCCAAGTGGACGGTTGTCCG
D F I R H L L E R D P Q K R F T C Q Q A

841 CTTACAGCATCTCTGGATCTCTGGGGATGCAGCCTTGGACAGGGACATCCTAGGTTCTGT 900
-----+-----+-----+-----+-----+-----+
GAATGTCGTAGAGACCTAGAGACCCCTACGTGCGAACCTGTCCCTGTAGGATCCAAGACA
L Q H L W I S G D A A L D R D I L G S V

901 CAGTGAGCAGATCCAGAAGAATTTTGCCAGGACCCACTGGAAGCGTGCATTCAATGCCAC 960
-----+-----+-----+-----+-----+-----+
GTCACCTCGTCTAGGTCTTCTTAAAACGGTCCTGGGTGACCTTCGCACGTAAGTTACGGTG
S E Q I Q K N F A R T H W K R A F N A T

961 ATCATTCCCTACGTCACATCCGTAAGCTGGGACAGAGCCCAGAGGGTGAGGAGGCCCTCCAG 1020
-----+-----+-----+-----+-----+-----+
TAGTAAGGATGCAGTGTAGGCATTCGACCCTGTCTCGGGTCTCCCACTCCTCCGGAGGTC
S F L R H I R K L G Q S P E G E E A S R

1021 GCAGGGTATGACCCGTACAGCCACCCAGGCCTTGGGACTAGCCAGTCTCCCAAGTGGTG 1080
-----+-----+-----+-----+-----+-----+
CGTCCCATACTGGGCAGTGTGCGGTGGGTCCGGAACCCTGATCGGTCAGAGGGTTCCACCAC
Q G M T R H S H P G L G T S Q S P K W V

FIG. 6B

58 Rscd PCT/PTG 27 FEB 1998

9 / 10

1081 ACAACCAGGTGGATGCCAAGGAAGGCCAAGTGGACTGACTCCTAGCTTTTCTTTCTCTCCA 1140
-----+-----+-----+-----+-----+
TGTTGGTCCACCTACGGTTCCTTCCGGTTCACCTGACTGAGGATCGAAAAGAAAGGAGGT
T T R W M P R K A K W T D S

1141 GCCCTTTTGATCTCCTTCCCTGATCCTTGTCCTCCCGGACTGGCCTCTGTTGGAAAGTCCA 1200
-----+-----+-----+-----+-----+
CGGGAAAACCTAGAGGAAGGGACTAGGAACAGGGGGCCTGACCGGAGACAACCTTTCAGGT

1201 AGACCGTGGGTGTGATGCATGGCACTGGGGTATGGGGCTTCCCAAGTATGTCCCCAGCCT 1260
-----+-----+-----+-----+-----+
TCTGGCACCCACACTACGTACCGTGACCCCATACCCCGAAGGGTTCATACAGGGGTCGGA

1261 CTGTCCTTTGTTGCTGCCACCCTCTATGGAACTGAGGAGGTATTCAAAAATGGATTG 1320
-----+-----+-----+-----+-----+
GACAGGAAACAACGACGGTGGGAGATACCTTTGACTCCTCCATAAGTTTTTACCTAAACC

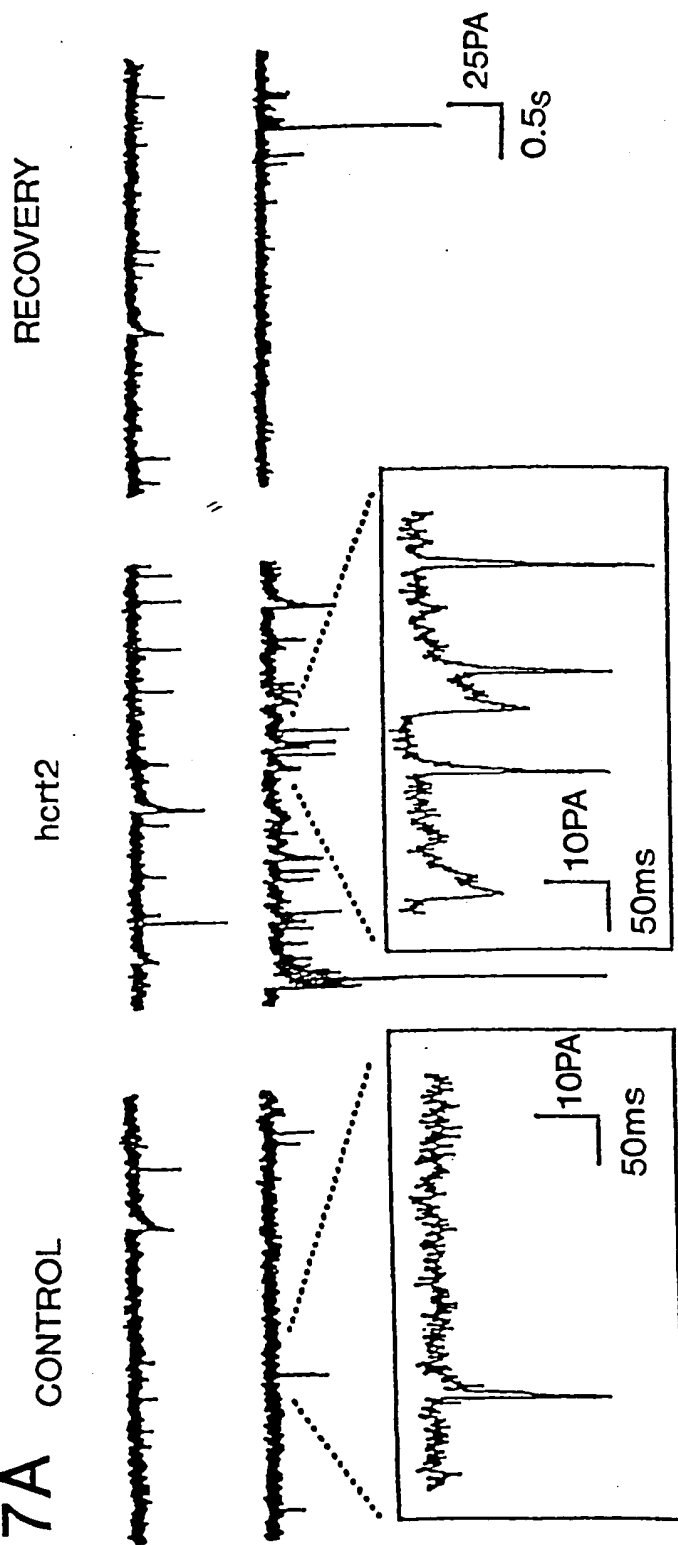
1321 GGGCCATCCTTCCTGCACCTTGACGCACATATGCATTGCGTGGCTGTTCTGTGCTTTGC 1380
-----+-----+-----+-----+-----+
CCCGGTAGGAAGGACGTGGAACGTGCGTGATACGTAACGCACCGACAAGACACGAAACG

1381 TGA CTGTGGGTGGTCTGCTTGTTGTGTGTAGCCCTTTAGTTCCTCCTCTTTCCAACCAATA 1440
-----+-----+-----+-----+-----+
ACTGACACCCACCAGGACGAACACAACATCGGGAAATCAAGGAGGAGAAAGGTTGGTTAT

1441 AAGACAAACAGACAATG 1458
-----+-----
TTCTGTTTGTCTTGTTAC

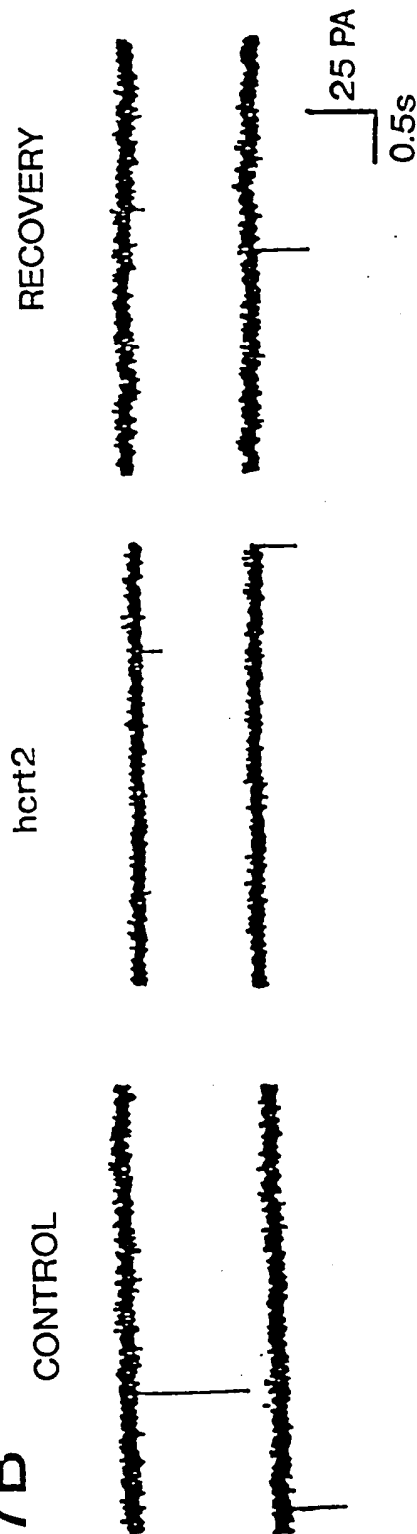
FIG. 6C

FIG. 7A CONTROL



10 / 10

FIG. 7B



50 Rec'd PCIT/PTO 27 FEB 19

97/13657